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LOGICAL SEMANTICS AND NORMS: A KANTIAN PERSPECTIVE

abstract

It's widely accepted that normativity is not subject to truth values. The underlying reasoning is that truth values can only be predicated of descriptive statements; normative statements are prescriptive, not descriptive; thus truth value predicates cannot be assigned to normative statements. Hence, deonticity lacks logical semantics. This semantic monism has been challenged over the last decades from a series of perspectives that open the way for legal logics with imperative semantics. In the present paper I will go back to Kant and review his understanding of practical judgments, presenting it as supported by a pluralistic semantics. From this perspective a norm of Law is a logical expression that includes as content a generic description of a possible behavior by a generality of juridical agents, and assigns to that content the assertion of its obligatory character, accompanied by a disincentive for non-compliance. From this perspective legal norms can be syntactically formalized and assigned appropriate semantic values in such terms that they can be incorporated into valid inferential schemes. The consequence is that we can put together legal logics that handle both the phenomenal and the deontic dimensions of legality.

keywords

Kant, legal norm, logical semantics, legal logic, imperative semantics

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1. Introduction

According to a long-held perspective, normative statements are not subject to truth values. Imperatives such as "*John, leave this room!*" and permissions like "*Mary, you may enter now*" are neither true nor false.[1] This view, usually supported by either Predicate Logic (PL) or First Order Logic (FOL), assumes that truth-value semantics[2] applies to expressions such as "*John leaves this room*" or "*Mary enters this room*", expressions that describe facts in the world. From this perspective, since truth values can only be predicated of descriptive statements and since normative statements are prescriptive, not descriptive, truth values cannot be assigned to normative statements. Hence, deonticity lacks logical semantics.[3]

This semantic monism has been challenged from a series of perspectives, including alethic pluralism for which "the distinction between different domains of truth-apt discourse is not a purely verbal one. ... distinctions between different domains of discourse reflect significant differences in the nature of truth across domains" (Pedersen, 2014, p. 260), domains that include Law. If we stick to this perspective, "truth and falsity are the qualities of descriptions when things are or are not as they have been described, while *right* or *wrong* are the qualities of acts that are or are not in accordance with what has been prescribed" (Hansen, 2008, p. 7). If true and false are the values of a descriptive semantics, then the sentence "*John leaves this room* is true" is true if John leaves the room. Likewise, if right and wrong are the values of an imperative semantics, "*John leaves this room* is right" is right if John leaves this room.

For Kant judgments associate a syntactically defined content (specifying states of affairs or transformations of states of affairs) to a modal value that may concern either a descriptive or a normative semantics. Ascertaining that the content verifies or doesn't verify in the world is the function of a theoretical semantics that determines the status of things in the world; ascertaining that the content should or should not be willed to be in the world is the function of a practical semantics that determines how intentional action shapes things in the world. The present paper argues that this semantics may contribute to our understanding of normativity and provides valuable inputs for the development of the logic of Law.

1 For the purposes of the present paper normative statements include norms and imperatives/permissions.

2 Bivalent and monist (the semantics has a single set of two values).

3 While standard deontic logic pays little consideration to the applicability to norms of truth-value semantics (Weinberger, 1998, pp. 146-147, note 3), there are thinkers that work with both a deontic syntax and a deontic semantics (Kanger, Hintikka, Weinberger, Soetman or Vilanova), handle normativity with FOL (Klug, Hage), or approach it in purely syntactical terms without recourse to semantics (Alchourrón and Martino).

2. Syntax and Semantics in Kant's Logic

For Kant judgment results from the combination of four logical functions: Quantity, quality, relation and modality (*KrV*, p. A70/B95), of which the first three express the content of the judgment (*KrV*, p. A74/B100).[4] Consider "*John is in the room*"; it is quantitatively singular, qualitatively affirmative and establishes a categorical relation between John and the room.[5] Modality is not included in the content of the judgment, instead it relates the content (the syntactically well-formed-formula) to "thinking in general" (*KrV*, p. A74/B100). The key word is *general*. The modal relation of a judgment to other judgments is not direct, or they would be related in *particular*: The relation would be established syntactically with syntactical connectives leading to the formation of a complex judgment. Suppose we have the two formulas "*John leaves the room*" and "*John enters the kitchen*". We relate them with a connective and get a complex formula, for instance "*John leaves the room implies that John enters the kitchen*", where the two concrete formulas are related in *particular*. Modalities are different. The modal value attached to a judgment relates it to a *set of other judgments* that can possibly be formulated, each assigned a modal value. John can be in the room, the kitchen or in many other places; we may configure an indeterminate set of formulas corresponding to each possible location where he can be; yet, the moment we attach a modal value to "*John leaves the room*", we constrain how this judgment may relate to each of the other possible formulas the moment they are also assigned a modal value. This relation of a concrete judgment to the generality of other judgments through a modal value corresponds in Kantian logic to the truth-values of PL or FOL semantics.

Kantian semantics adds two further layers of sophistication to bivalent semantics. First, it works with three sets of bivalent values: *Problematic* (problematic – unproblematic); *assertoric* (assertoric – non-assertoric or true – false); *apodictic* (apodictic – non-apodictic).[6] If all judgments under consideration are assigned values from the same set, then inferences are drawn in terms similar to PL/FOL. Yet, one can *move* from one pair of values to the next (For instance, *KrV*, p. A76/B101):[7] We may start with a problematic judgment, *move* to an assertoric judgment, and next *move* to an apodictic judgment (we cannot jump from a problematic judgment to an apodictic judgment). We can only *move* from one moment to the next if the departing value is, so to speak, "positive": We can move from problematic to assertoric if the problematic judgment is *problematic*; and we can move from assertoric to apodictic if the assertoric judgment is *assertoric*.[8]

More relevantly for this paper, judgments associate a *logical form* with a *matter* that corresponds either to the domain of nature, subject to theoretical judgments that express our knowledge, or to the domain of freedom, framed with practical judgments that express our will (*KU*, p. 20:196). The *matter of the domain of nature*, the phenomenal data sensually and passively intuited by the person, is discursively represented in the syntactical content of the judgment by expressions such as "*John is in the room*". The *matter of domain of freedom* is delineated by the "principle of humanity, and in general of every rational nature, *as an end in*

4 This content can be broadly assimilated to the syntax of an atomic well-formed-formula in FOL with two provisos: Kant treats negation as an intra-propositional component of the formula, not as a unary connective; the relation forms contribute to the shape of atomic formulas, they don't correspond to inter-propositional connectives.

5 In FOL this may be formulated as "*in(John,Room)*", where *John* and *Room* are constants. The copula is expressed by the form "_(_,_)".

6 Kant is explicit that each modal moment has two values, but he doesn't name the members of each pair. The designations proposed were just extrapolated from his designations of the modal forms.

7 Notice that the syntax of the judgment doesn't change in the course of the movement.

8 In the process we may "freeze" each movement and form two instances of trivalent semantics: A problematic/assertoric semantics with the three values problematic – assertoric – non-assertoric; an assertoric/apodictic semantics with the three values assertoric – apodictic – non-apodictic.

itself (which is the supreme limiting condition of the freedom of action of every human being)" (*Grundlegung*, p. 4:430-431). The *rational nature as an end in itself* is the *subject of all ends*, "every rational being as an end in itself" (*Grundlegung*, p. 4:431), rational being that finds himself in a *Kingdom of Ends*, "the systematic combination of various rational beings through communal laws" (*Grundlegung*, p. 4:433). So, morality is about humans, entities with the faculty of free action and the ability to constrain their will through rules, norms or laws.
The domain of freedom is linked to the domain of nature since the will is exercised on phenomena. So, the correct syntactical expression of a practical judgment is "*A's will is that X*" where *X* is an expression of a state or an event in nature; for instance "*John's will is that (John is in the room)*". As Kant implies and as Geach enunciated (1965, pp. 453-454 and 456), an expression such as this is exponible into two expressions:[9]

"*John's will is that (John is in the room)*".
"*John is in the room*".

So far we have been dealing with the syntax of judgment. As by *the Frege point* (Geach, 1965, p. 449),[10] purely syntactical expressions with no semantic value assigned such as the two above are non-descriptive and non-prescriptive: They are free to be assigned a semantic value in an appropriate semantics.

3. Modal Categories

So, for Kant the same formal logic underscores reasoning about nature and about freedom, but it has different specifications in each domain through domain-specific concepts, the theoretical and practical categories. We thus have a theoretical semantics and a moral semantics:[11]

Moment of modality	**Nature**[12]	**Freedom**[13]
Problematic	Possible vs. impossible	Permitted vs. forbidden
Assertoric	Existent vs. non-existent	Duty vs. contrary to duty
Apodictic	Necessary vs. contingent	Perfect duty vs. imperfect duty

What do these categories mean?
In the domain of nature *problematic* means either *possible* or *impossible*. Impossible is what cannot obtain in nature, what does not belong to the phenomenal world; if John is dead, "*John is in the room* is impossible". By contrast, possible is what may or may not be true in nature, what we are incapable of dismissing as impossible or assert as true; if we don't know for sure where John is, then "*John is in the room* is possible". The theoretical true-false values, the *assertoric* categories in the domain of nature, are *existence* and *non-existence*.[14] If I judge that

9 Since for Kant theoretical judgments express knowledge, their syntactical form should be the exponible "*A knows that X*". The theoretical example corresponding to the practical judgment in the main text is "*Someone knows that (John is in the room)*" and "*John is in the room*". I'm thankful to the anonymous reviewer that pointed me to Geach's paper.
10 Such expressions are just *mere combination of ideas* (Frege, 1879, p. 11) or *indifferent modal substrates* (Kelsen, 1994, p. 72).
11 Note that Kant reserves for semantics expressions such as possible, necessary, prohibited, obligatory, etc., terms that in contemporary logic find their place in syntax.
12 *KrV*, p. A80/B106.
13 *KpV*, p. 5:66.
14 Against the usual Russellian and Quinean perspective, Kant works within the traditional understanding that

"*John is in the room* exists", I posit that John being in the room is the state of facts that actually obtains. Theoretical *apodictic* judgments are either necessary (*a priori* scientific laws) or contingent (regularities based on *a posteriori* observations of experience).
The practical *problematic* categories are *permitted* and *forbidden* (*MS*, p. 6:221-222). An action that does not concern the Kingdom of Ends is *permitted*, meaning that it is morally indifferent, has no moral value (*MS*, p. 6:223). John's hobby is to watch tv, who would blame him for that? In fact, we can judge that "*John's will is that (John watches tv during his leisure hours)* is permitted". *Forbidden* is harder to grasp. Kant uses an analogy taken from the "common use of language":

> "for example, it is *forbidden* to an orator, as such, to forge new words or constructions; this is to some extent *permitted* to a poet; in neither case is there any thought of duty. For if anyone is willing to forfeit his reputation as an orator, no one can prevent him" (*KpV*, p. 5:11, note).

Kant seems to be thinking about something like the technical rules or standards we find in industries or economic activities (quality standards, IT standards, etc.), rules that are not obligatory or indifferent. The juridical concept that better encapsulates this notion of *forbidden* is the concept of *onerous*. An onerous behavior, while not prohibited, may have collateral negative consequences for the agent. Consider John, a freelancer that watches tv during his working hours, in the process risking the loss of valuable business. We are likely to judge that "*John's will is that (John watches tv during his working hours)* is onerous (forbidden)".
Assertoric moral judgments may be either duties or contrary to duty. Duty is linked to *obligation*, "the necessity of a free action under a categorical imperative of reason" (*MS*, p. 6:222), moral necessitation (*MS*, p. 6:221). Kant clarifies, "In all [practical] lawgiving ... there are two elements: first, a *law*, which represents an action that is to be done as *objectively* necessary, that is, which makes the action a duty" (*MS*, p. 6:218). Notice, the moral law *represents* the action as objectively *necessary*. This necessity does not concern the moral modality, it concerns the modality of the behavior defined in the theoretical judgment presupposed by the moral judgment. This is a *possible* behavior[15] that the assertoric moral judgment *represents as necessary*. This representation of the (natural) behavior as being *apodictic* (necessary) should not be confused with the practical *assertion* of the will as a duty or contrary to duty. John should judge that "*John will is that (John watches tv during his working hours)* is contrary to duty", in the process representing "*John watches tv during his working hours*" as something that necessarily doesn't happen, even if theoretically possible.
Finally, what distinguishes moral apodicticity (moral law-giving) from moral assertion is that the apodictic moral judgment adds to the duty "an incentive, which connects a ground for determining choice to this action *subjectively* with the representation of the law" (*MS*, p. 6:218) to the extent that either the agent willingly acts according to duty, or he is compelled to act according to the moral judgment by the incentive that "necessitates" the obligatory behavior.[16]
If follows from what has been said up to now that the contrast between theory and practice is not between something that *is* and something that *should be*, it is between something that *is*

existence and quantity are not intrinsically related, quantity has no existential import (Priest, 2008; see also McGinn, 2000). Neither is existence treated in syntax through an existence predicate, since for Kant it is the expression of truth in the natural domain, a modal (semantic) concept.

15 What is impossible, what is existent or what is necessary cannot be determined by the will.

16 In law the incentive "is something other than the idea of duty [and] must be drawn from *pathological* determining grounds of choice, inclinations, and aversions"; in ethics the incentive is the duty itself (*MS*, p. 6:219).

(known as) possible/existent/necessary and something that *is (willed as) permitted/a duty/a perfect duty*. The something that *is* is the same in both cases; *should-be* contrasts with *exists-to-be*, *is-due* with *is-existent.*[17] Kant also contrasts a *be* (*happening*) with a *should-be* (*KU*, p. 5:403). Here *happening* expresses both existence (modality) and causality (relation), the existence of causal processes in nature. Likewise, *should-be* morally asserts a hypothetical relation, it expresses morally ordained causality by a free will.

4. Normative Judgments

Where do norms enter this picture? For Kant, norms (*laws*) are a specific type of judgment that's characterized as being quantitatively universal and modally necessary.
Thus far we have been looking at judgments about particular instances, *facts*, and we thus have natural facts and moral facts: "*John is in the room* is possible" is a problematic natural fact; "*John's will is that (John is in the room)* is obligatory" is an assertoric moral fact. Facts are quantitatively singular or particular (and they are modally either problematic or assertoric). Norms are not factual judgments: They are quantitatively universal, apply extensionally to all configurable cases with no exceptions; and they are apodictic. The result is that the contrast is not between a domain of *facts* (of nature) and a domain of *norms* (of freedom or moral), since we have both natural and moral norms (for instance, *MS*, p. 6:214), just as we have both natural and moral facts. In the specific case of Law, we find both a juridical factuality comprising concrete legal entities, situations and actions, and a juridical normativity integrating universal and necessary legal norms.
The universality of the legal norm is present in all the layers of its syntactical content. Consider the norm, *People must help those in need*. In order to make its proper quantification explicit, it's useful to express the implicit reference to the will:

"*People must will that people help those in need*".

We also should separate the syntactical content from the modality:

"*People's will is that people help those in need*" (content) vs. "*must*" (modality).

As we have seen before, an expression such as this is exponible into a practical content related to the will, and a theoretical content related to the willed behavior;[18]

Practical: "*People's will is that (people help those in need)*";
Theoretical: "*People help those in need*".

We can now quantify these expressions, ensuring that both are universal:

"*All people's will is that (all people help all those in all [situations of] need)*".
"*All people help all those in all [situations of] need*".

To the extent that a legal norm is a universal practical judgment, it imposes on all wills the same pattern of behavior in the situations under consideration. It's worth recalling that for

17 In Fichte's terms, "just as theoretical philosophy has to present that system of necessary thinking according to which our representations correspond to a being, so practical philosophy has to provide an exhaustive presentation of that system of necessary thinking according to which a being corresponds to and follows from our representations" (Fichte, 1798, p. 8).
18 We will not enunciate the hypothetical expression implicit in this seemingly categorical formula.

Kant morality concerns the Kingdom of Ends quantitatively, encompassing its free-willed subjects. If while judging the agent only considers his personal will (ignoring all other free-wills), his judgment is singular, his personal *maxim*. If instead he considers the judgments of other free-willed agents expressed in regular practices or resulting from a joint exchange of ideas among people, his judgment is morally *particular* (it takes into consideration a quantitatively variable set of homogeneous wills), a *precept*. Finally, if he judges according to the will of a universal legislator that legislates for all free wills comprised in the Kingdom of Ends, his judgment is morally *universal*, corresponds to the judgment that all members would produce according to reason, a *natural law*. There's a catch, though: Moral universality requires a degree of rationality in willing that is seldom achievable. Fortunately we can stick to a lower standard; we often frame *particular* judgments by considering a wide range of instances without exceptions. Such judgments are *general*, and we can use them as if they were (approximately) universal. This is the case of *positive laws*, precepts crafted through *customs* (behavioral regularities perceived as imperative) or resulting from agreements enshrined into *statutes*. "*People must help those in need*" may be just one such norm.
Up to this point we expressed the two well-formed-formulas expounded from our norm.
To conclude it's analysis, we have to assign the relevant modal values to the two formulas, respectively apodictic and problematic:

> "*All people's will is that (all people help all those in all [situations of] need)* is obligatory and enforceable".
> "*All people help all those in all [situations of] need* is possible".[19]

5. Conclusion

In the present paper we followed Kant in his analysis of practical judgments divided into two components: A syntactical expression, exponible into the expression of a will to behave and the expression of the willed behavior; a moral semantic value (a deontic concept) that expresses how the will must direct the action in the choice of an option among the phenomenal alternatives. Kant's insights provide ample material for handling the phenomenal and the deontic dimensions of legality, and for the construction of a logic for Law.

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19 A *possibility* represented as *practically necessary* by force of the obligation.

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